



U.S. Department
of Transportation

**Federal Highway
Administration**

Memorandum

6300 Georgetown Pike
McLean, Virginia 22101

Subject: **ACTION:** LTPP Directive GO-31
Storage of LTPP Data on CD-ROMs

Date: July, 9 2003

From: Eric Weaver 
Long Term Pavement Performance Team

Reply to
Attn of: HRDI-13

To: Dr. Frank Meyer, PM - LTPP North Atlantic Regional Contract
Dr. Frank Meyer, PM - LTPP North Central Regional Contract
Mr. Mark Gardner, PM - LTPP Southern Regional Contract
Mr. Kevin Senn, PM - LTPP Western Regional Contract

Attached is the Long Term Pavement Performance (LTPP) Program General Operations Directive GO-31: Storage of LTPP Data on CD-ROMs. This directive addresses storing valuable data and information on CD-ROM, which can be easily copied and made available upon request.

Please ensure that all personnel involved with the IMS and FWD data collection are aware of this new directive.

Should you have any questions or would like to discuss this directive, please do not hesitate to contact me at 202-493-3153.

Attachments

LONG TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE



For the Technical Direction of the LTPP Program



Program Area:	General Operations	Directive Number:	GO-31
Date:	July 9, 2003	Supersedes:	N/A
Subject:	Storage of LTPP Data on CD-ROMs		

Background

The LTPP program intends to make potentially valuable data and information not currently in the Pavement Performance Database (hereafter referred to as the LTPP database) more readily available to data analysts and other potential users. One such effort includes the storage of digital distress maps, distress photographs, digital distress images, raw profile data, profile data collected at WIM sites, and raw deflection data on CD-ROMs. Although this effort will not lead to the upload of data into the LTPP database in the immediate future, the data stored on CD-ROMs can be easily copied and made available upon request.

Common data elements will be stored on separate sets of CD-ROMs. For example, digital distress maps, photographs and digital images will be stored on one set of CD-ROMs, raw K. J. Law T6600 and ICC MDR 4086L3 profile data on another set of CD-ROMs, and raw deflection peak and time history data on yet another set of CD-ROMs. Within these sets, the data for each agency will be stored on a separate CD-ROM. Depending on data quantity; it may be necessary to store the data for a given agency on more than one CD-ROM. In addition, subdirectories will be created within each agency CD-ROM(s) according to SHRP_ID and survey date (i.e., date when data were collected).

The specific data to be stored on CD-ROM are addressed in separate directives; one directive per common set of data elements. This directive details the naming convention to be used by the LTPP Regional Support Contractors (RSCs) to create those CD-ROMs and their subdirectory structure, the storage of working files, and the submittal of CD-ROMs to the Federal Highway Administration (FHWA) and the Technical Support Services Contractor (TSSC). Use of name-brand CD-ROMs is encouraged as they are generally made of better quality materials, thus providing longer life and better security against loss of data.

CD ROM Naming Convention

The following CD-ROM naming convention shall be used:

Data_Region_Volume_State_Version

where:

Data	=	Data type or module to which information is linked in the IMS; e.g., DIS for CD-ROMs containing distress data (maps, photographs and images), PROF for CD-ROMs containing raw profile data, FWD for CD-ROMs containing raw deflection data, and WIM_PROF for CD-ROMs containing profile data collected at LTPP WIM sites.
Region	=	Two digit LTPP region abbreviation, as follows: NA for North Atlantic region. NC for North Central region. SR for Southern region WR for Western region.
Volume	=	Unique number in sequence starting with 01, which represents total number of distinct CD-ROMs created; a distinct CD-ROM is defined to be a set of sections from just one state/province to which additional data are added.
State/Province	=	Two letter standard state/province postal code, e.g., Alabama is AL , Alberta is AB , Florida is FL , etc.
Version	=	Three digit version number, starting with 001 , used to keep track of writes, rewrites and updates. Version is incremented by 1 each time changes are made to a volume; i.e., when new data files are added to volume or existing data files are deleted or revised.

For example,

Early in 2000, the Southern Region scans all the manual distress maps for AL, FL, GA, MS, TX and NM. Six CD-ROMs are then created for all available distress maps and photographs for each of the six highway agencies. Each agency's data fits comfortably on its respective CD-ROM with sufficient room to put maps and photographs expected to be completed for those states between now and the end of the contract. The CD-ROM for Alabama becomes DIS_SR_01_AL_001. The CD ROM for Florida becomes DIS_SR_02_FL_001. As CD-ROMs are created for each state/province, volume numbers are assigned as 03, 04, 05, and 06, with no particular attention paid in attempting to correspond each state/province code in order with volume number unless so desired.

Later in 2001, a set of automated distress maps are received for the same states. The AL maps are added to the information already on its respective CD-ROM and the revised CD-ROM is named DIS_SR_01_AL_002. Similarly, the Florida data is added to its CD-ROM and the revised CD-ROM is named DIS_SR_02_FL_002. If a CD-ROM becomes full for a particular state/province, the remaining data will be placed on a new CD-ROM

in a like manner. For example, a second CD-ROM with data from Alabama is labeled DIS_SR_0X_AL_001, where 0X is the latest volume number assigned at the time the CD-ROM is created.

CD-ROM Subdirectory Structure

The following subdirectory structure shall be used in all CD-ROMs:

STATE_CODE+SHRP_ID\SURVEY_DATE (in YYYYMMDD format)

For example,

Data for Texas' 0001 GPS section collected on July 4, 1995 would be stored in 480001\19950704. Data for Arizona's SPS 5 sections collected on either October 1st (core sections) or October 2nd (supplementals) 1999, would have as subdirectories: 040501\19991002, 040502\19991002, ...040509\19991002, 040559\19991002.

Storage of Working Files

Working data files may be stored on zip disks, Jaz cartridges or other FHWA approved medium between intervals of creating CD-ROMs. At least one copy of working files shall be kept to minimize potential loss of data or effort. Mediums used to store working files must have the same subdirectory structure as CD-ROMs, prefaced by the label of the CD-ROM being updated or created.

For example,

Manual distress maps are being scanned over the course of several weeks. AL and MS maps are done first. Maps for the AL surveys go in DIS_SR_01_AL_001\01. The data for the MS surveys goes in DIS_SR_0X_MS_001\28 where 0X is the volume number assigned at the time the CD-ROM is created.

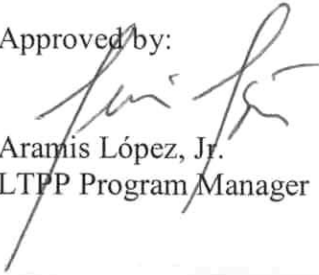
Submittal of CD-ROMS

The regional contractors shall provide one copy of the most current version of each CD-ROM to the FHWA and one to the TSSC for use by Customer Support Services on the first Monday in July. The regional contractors shall also retain a minimum of one copy of each version of each CD-ROM.

Questions concerning this directive should be addressed to the FHWA LTPP Team staff member responsible for regional operations, with a copy to the TSSC.

Prepared by: TSSC Team

Approved by:


Aramis López, Jr.
LTPP Program Manager